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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,885	10/10/2001	William R. Bush	6502.0357-00	2176

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SUN MICROSYSTEMS/FINNEGAN, HENDERSON LLP
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WASHINGTON, DC 20001-4413

EXAMINER

DADA, BEEMNET W

ART UNIT	PAPER NUMBER
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2135

MAIL DATE	DELIVERY MODE
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12/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/976,885

Applicant(s)

BUSH ET AL.

Examiner

Beemnet W. Dada

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/25/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/25/2007 has been entered. Claims 1-29 are pending.

Response to Arguments

2. Applicant's arguments filed 10/25/07 have been fully considered but they are not persuasive. Applicant argued that Chan (US 7,089,242) fails to privilege value which is based on the untrusted class. The 'sensitive function' taught by Chan is not a 'trusted class' or 'untrusted class' and Chan is directed to protection of a sensitive function that resides within a class from access by members outside of that class. Examiner disagrees.

Examiner would point out that, Lamacchia (US 7,076,557) teaches controlling access to a first trusted class by an un-trusted class or a second trusted class based upon the privilege information associated with the first trusted class [column 8, line 57-column 9, line 9 and figure 4A steps 409-424]. Lamacchia further teaches associating privilege information with the first trusted class (i.e., associating permission grants with the application code)[figure 2A-2B and column 7, lines 13-30]. Chan teaches associating privilege information with a first trusted class (i.e., protected class 4 of figure 1, registering trusted/untrusted class information within a protected class to be accessed, column 3, line 61-column 4, line 7), the privilege information including a privilege value based at least in part on an untrusted class (i.e., access to the some functions of protected class 4 by other trusted/untrusted classes (i.e., class 30 & 34) is based on

privilege information associated with the protected class in the friend function, the privilege information is based on the calling trusted/untrusted class, see column 5, lines 3-21, and column 5, line 60-column 6, line 24). Chan further teaches limiting access to a class/specific functions within a class by other trusted/untrusted classes [column 3, lines 41-54]. Examiner would point out that, the combination of LaMacchia and Chan teaches the claim limitations and therefore the rejection is respectfully maintained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 10-21 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaMacchia et al. US 7,076,557 B1 (hereinafter LaMacchia) in view of Chan et al. US 7,089,242 B1 (hereinafter Chan).

5. As per claims 1, 18 and 25, Lamacchia teaches a method for providing security, comprising:

separating a plurality of classes of an application code (i.e., code assemblies, see for example, figure 2, main code assembly 202, parser code assembly 204) into at least a first trusted class and an un-trusted class (i.e., having different level of permission grant/partially trusted & trusted code) [column 7, lines 20-50 and column 9, line 1-31];

associating privilege information with the first trusted class (i.e., associating permission grants with the application code)[figure 2A-2B and column 7, lines 13-30]; and

controlling access to the first trusted class by the un-trusted class or a second trusted class based upon the privilege information associated with the first trusted class [column 8, line 57-column 9, line 9 and figure 4A steps 409-424].

Lamacchia further teaches associating privilege information with the first trusted class (i.e., associating permission grants with the application code)[figure 2A-2B and column 7, lines 13-30]. However, Lamacchia is silent on privilege information including a privilege value based on at least in part on the untrusted class. Within the same field of endeavor, Chan teaches associating privilege information with a first trusted class (i.e., protected class 4 of figure 1), the privilege information including a privilege value based at least in part on an untrusted class (i.e., access to the some functions of protected class 4 by other trusted/untrusted classes (i.e., class 30 & 34) is based on privilege information associated with the protected class in the friend function, the privilege information is based on the calling trusted/untrusted class, see column 5, lines 3-21, and column 5, line 60-column 6, line 24). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Chan within the system of Lamacchia in order to enhance security of the system.

6. As per claims 2, 4-6, 27 and 29 Lamacchia further teaches the method further comprising: granting the untrusted class or the second trusted class a privilege related to the first trusted class based upon a permissive attribute of the privilege information and wherein the step of controlling access depends upon the privilege [column 8, line 57-column 9, line 9 and figures, 2A, 4A steps 409-424].

7. As per claims 3, 26 and 28 Lamacchia further teaches the method further comprising: refusing to grant the untrusted class or second trusted class a privilege related to the first trusted class based upon a permissive attribute of the privilege information and wherein controlling access depends upon the privilege [figure 4A steps 409-424].

8. As per claim 10, Lamacchia further teaches the method wherein the step of separating the classes further comprises allocating a separate memory space for the first trusted class and the un-trusted class [column 7, lines 3-19].

9. As per claims 11-14, Lamacchia further teaches the method wherein the privilege information further comprises a plurality of permissive attributes [column 7, lines 31-49 and column 8, lines 39-56].

10. As per claims 15-17, Lamacchia further teaches the method wherein controlling access to the first trusted class further comprises: detecting when a request for a trusted class operation is made by the un-trusted class or second trusted class, determining that the trusted class operation is authorized based on the privilege information associated with the first trusted class, and allowing access to the first trusted class according to the trusted class operation [column 16, lines 25-40, figure 4A, steps 412, 409, 422 and 424].

11. As per claims 19-21, Lamacchia further teaches the method wherein the request received by the controller is one of the group of a subclass attribute, a new instance attribute, a method invocation attribute, and a trusted data access attribute [column 7, lines 14-49].

12. Claims 7-9 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaMacchia et al. US 7,076,557 B1 (hereinafter LaMacchia) in view of Chan et al. US 7,089,242 B1 and further in view of Papa et al. (Ref U of Form 892 sent on 2/09/06).

13. As per claims 7-9 and 22-24 Lamacchia-Chan teaches the method as applied to claims 1 and 18 above. Lamacchia-Chan is silent on separating classes further comprising associating a package with a trusted class. However, Papa et al teaches associating a package with a trusted class, wherein associating the package further comprises encapsulating the first trusted class within the package [see page 67-68, sections 2.1, java package protection model, 2.2 authorization model]. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Papa et al within the system of Lamacchia and Chan thereby allowing associating a package with a trusted class and providing protection within a package level.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

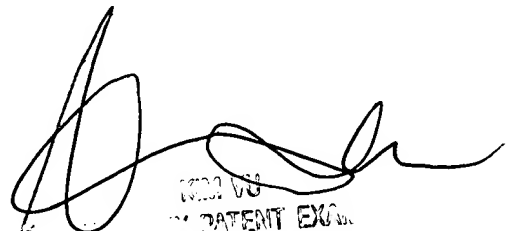
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beemnet W. Dada whose telephone number is (571) 272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Beemnet W Dada

December 6, 2007



2007-12-06
PATENT EXC.
BY BEEMNET W. DADA